

76. *Urubitinga anthracina*, sp. 263.

Dueñas, July, changing from immature to adult plumage.

Fam. COLUMBIDÆ.

77. *Chamæpelina passerina*: sp. 313.

I have found nests of this bird both on the ground and elevated a few feet above it.

78. SCARDAFELLA INCA, Bp. Consp. ii. p. 85.

Dueñas, July 19th, ♂.

This is the first and only specimen I have met with of this Ground-dove at Dueñas. On the coast it is numerous, resembling in its habits the common species of this district, *Chamæpelina passerina*.

Fam. ARDEIDÆ.

79. *Butorides virescens*, sp. 333.

I have noticed two other species of Heron about the Lake of Dueñas, but this is the commonest.

Fam. RALLIDÆ.

80. *Fulica americana* (Gm.), sp. 361.

A young bird in its first dress. The Coot of the Lake of Dueñas appears to be the *F. americana*, after all, as I have noticed that the old bird has a spot of the colour of dried blood above the white frontal plate. In the young bird the bill is vermilion-red with a lighter spot next to the white point on the upper mandible. Over the eye is blue, the colour of the eye-ball evidently showing through. The legs are brown with a faint cast of green.—O. S.

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VI.—*The Ornithology of Amoy* (China). By ROBERT SWINHOE, of H. M. Consular Service.

As I am about to leave Amoy for a place further down the coast, a short notice of the species of birds collected by me on this island and its immediate vicinity during a five years' sojourn would perhaps find an acceptable place in 'The Ibis.'

The position of Amoy and its relative bearings to the main-

land of China may be ascertained from any ordinary map; a few words will therefore suffice to explain the nature of the country in which I have followed my loved pursuit. This island, the neighbouring shores of the mainland, and the banks of both the rivers (the larger one leading to Changechow Foo and the smaller to Tungan Hien), are all densely populated, and have remarkably little wood, except occasional Banyan-trees interspersed amidst the villages. The plains are well cultivated with rice, maize, sugar-cane, *Cucurbitaceæ*, and hemp, during summer, and during winter with bearded wheat, spinach (*Basella rubra*), taro, cabbage, &c. The hills are either composed chiefly of granite débris, studded with huge black blocks of granite, and extremely barren; or of clay, and covered with small stones and scanty herbage. This character of the country will probably account for the paucity of our resident species among *Land-birds* as compared with the occasional visitants or stragglers in the same group. The *Water-birds*, however, show a finer list, no doubt, owing to the suitable feeding-ground afforded them by the large mud-flat of the Amoy Creek, those of several other inlets and creeks into the mainland, and the marshes at the mouths of the rivers.

In identifying the following birds, Mr. Blyth of Calcutta has rendered me infinite service; indeed, without his valued aid, I could have done little among the non-European forms. I have also to thank Mr. Stevenson of Norwich for the help he has kindly afforded me.

1. *BUTEO JAPONICUS*, Bp.

A regular winter visitant, and often seen in pairs.

2. *PANDION HALIAËTUS* (L.)?

Lives on the rocks at the mouth of the harbour, and comes occasionally to Amoy; very shy and unapproachable. I have never been able to procure a specimen.

3. *FALCO PEREGRINUS*, Linn.

Breeds in the neighbourhood, on the high hill of Lamtaiboo, and is not unfrequently seen.

4. *HYPOTRIORCHIS SUBBUTEO* (L.).

Occasionally seen during winter; rare.

5. TINNUNCULUS ALAUDARIUS (Briss.).

Resident all the year; several pairs build on the Amoy rocks.

6. MILVUS GOVINDA, Sykes.

Very common in the harbour during winter, and living off the offal thrown from ships. In the summer the majority retire to breed on a small island called Pagoda Island, about six miles from the town. I have counted as many as sixty Kites over this locality, and found several nests in a single evening's stroll. They are generally placed on a ledge of rock; but I have also found them on trees.

7. ACCIPITER — ? (probably *Falco badius*, Gmel.).

Differs from the European bird (*A. nisus*) in having white *axilla*, as well as in many minor points. Occasionally seen during winter.

8. CIRCUS CYANEUS (Linn.).

Occurs sometimes during winter.

9. CIRCUS ÆRUGINOSUS (Linn.).

Of frequent occurrence in the neighbourhood.

10. ATHENE SCUTELLATA (Raffles).

An occasional winter visitant; found also in summer at Fouchow.

11. BUBO MAXIMUS, Fleming.

Occasionally seen of a winter's evening; builds somewhere in the neighbourhood, as every spring the young are sold in the streets of the town.

12. SCOPS BAKKAMÆNA (Penn.).

Rare. I procured two the same winter, one mottled brown on the upper parts, the other mottled buff; the first I take to be the immature plumage. Mr. Blyth informs me that this is a numerous species in the vicinity of Calcutta.

13. CAPRIMULGUS — ?

14. CAPRIMULGUS — ?

One species of *Caprimulgus* occurs at Amoy during the months of September and October. It is closely affine to *C. indicus* (Gmel.); but not having had an opportunity of comparing skins, I am

unable to state the identity of the two. Another species is found up the river towards Changchow during the same months, and is remarkable for having naked tarsi. It is smaller than the one that visits Amoy.

15. *CYPSELUS VITTATUS*, Jard. & Selb.

Frequent in spring, flying high in fine weather, but darting about low during rain; does not nestle here.

16. *CYPSELUS AFFINIS*, J. E. Gray.

A permanent resident, associating in parties that twitter together, and then disperse, darting about the sky in all directions, after a time again assembling. Thus they continue on wing the greater part of the day. They build their nests under the rafters of verandahs, shaped like those of the House-martin (*Chelidon urbica*), but composed of straw and other soft materials glued together in regular strata. In these nests the birds roost the year through.

17. *CHÆTURA NUDIPES*, Hodgs.

A straggler in spring during rain-storms.

18. *HIRUNDO GUTTURALIS*, Scop.

This bird looks merely like a degenerate variety of the European species. It is a summer visitant here and pretty numerous, building mud nests, lined with straw and a few feathers, over the doors of Chinese hovels. The natives protect the Swallow, as they believe that good luck attends it.

19. *HIRUNDO DAURICA*, Linn.

A few passing flocks spend a day or two in Amoy during winter. A few build on the mainland; but in Formosa it is common, and takes the place of the ordinary species.

20. *EURYSTOMUS ORIENTALIS* (Linn.).

Very rare.

21. *HALCYON SMYRNENSIS* (Linn.).

A common resident, called in Chinese "Fei-tsuy." Many of its feathers, chiefly those of the wing, are cut up into bits and glued over ornaments worn by Chinese ladies, giving the appearance of turquoise stone.



22. HALCYON PILEATA (Bodd.). (*A. atricapilla*, Gmel.)

Rare. The feathers of this are used for the same purpose as those of the foregoing, and give a deeper tone to the ornaments. I have not had the opportunity of comparing this with skins from other parts, so I am not quite sure of the species.

23. ALCEDO BENGALENSIS, Gmel.

A very common resident.

24. CERYLE RUDIS (Linn.).

Very common on the river, where it is to be found at all seasons; poises on the wing at a height above the water, and drops suddenly down to catch its prey. I have however seen it strike obliquely when flying close to the surface of the water.

25. UPUPA EPOPS, Linn.

Resides all the year, but not common; nestles in the holes of walls, and of exposed coffins, and hence called by the natives the "*Coffin-bird*."

26. ORTHOTOMUS PHYLLORRAPHEUS, n. sp.

This species is probably new, as it does not correspond to any described by F. Moore in his Monograph of the genus, read before the Zoological Society in February 1854. I extract from my journal the description of a male shot on the 22nd of February. Length 4·5 inches, wing 1·9, tail 2; bill along culmen ·5, to gape ·7; tarsus ·8. Bill pale flesh-colour, dark hair-brown along the culmen. Legs and toes pale yellowish brown. Iris buff; a narrow circle round the eye pale yellow. Forehead ferruginous, gradually changing to olive-brown on the head. Back bright olive-green. Wings and tail hair-brown, the coverts margined with olive-green, the quills with yellowish olive-brown. Round the eye and all the under parts, including the shoulder-edge, ochreous white, darker on the flanks, and buff on the tibiæ. The two central tail-feathers of the male gradually lengthen until May, when they are about an inch and a half or so longer than the others, which are all somewhat graduated. I observe that those lengthened feathers soon become worn, and usually drop after the first nesting, to be replaced by others only slightly longer than the rest.

This bird is found in all the gardens, hedgerows, &c., and is generally seen in pairs. The tailoring habits of the genus are well known. Mr. Blyth remarks, "Your *Orthotomus*, I think, is new, and constitutes the twelfth species (!) now recognized."

27. *PRINIA SONITANS*, n. sp.

I have given the above name from the crackling noise the bird produces when hopping or flying from twig to twig. A male, shot the 9th April, I have thus described:—Length 5·3, wing 1·7, tail 3; bill ·45, to gape ·5; tarsus ·8. Bill and inside of mouth black. Irides orange yellow. Legs buff-colour, browner on the claws. Head fine deep bluish grey. Chin and cheeks white. Occiput and back olive-green, blending with the grey towards the forepart and becoming tinged with sienna on the rump. Wings light hair-brown, margined with buff olive-green. Tail pale brown, margined and tinged with buff olive-green. Breast pale clear buff, tinged with primrose, deepening on the under parts, and very deep on the thighs. The female has the head less bluish than the male.

It is a common resident here and at Fouchow; it builds oval nests and lays seven strangely red eggs. Mr. Blyth says—"Your *Prinia* from Amoy comes exceedingly close to *P. flaviventris* (Deless.), which is common in the Bengal Sunderbunds, Tenasserim, &c., and which I have received also from Singapore; but yours has a longer tail, wants the bright yellow of the lower parts below the breast, and there is an admixture of white in the loreal regions and ear-coverts, not seen in our species."

28. *DRYMOICA EXTENSICAUDA*, n. sp.

This bird delights in fields of standing grain, long grass, &c., and is often seen standing on a high stalk with its tail thrown up, at the same time twittering a sharp series of unmusical notes. The following description is taken from a male, shot on the 9th of April:—Length 5·1; wing 1·9; tail 2·5 long, and graduated, the outermost feather measuring 1·3; bill ·4, to gape ·6; tarsus ·7. Bill deep blackish brown, paler just at the tip, yellowish flesh-colour at the base of the lower mandible. Inside of mouth pale flesh-colour. Iris orange-yellow; margin of eyelids buff. Legs yellow ochreous, flesh-colour on the upper surface of the

toes. Upper parts olive-brown. Region of the eye, curve of wing, and tibiæ buff-ochre. Under parts pale ochreous with a tinge of primrose-yellow. Wings and tail light hair-brown; the feathers of the former margined with olive-tinged yellowish brown on the coverts, and reddish on the quills; those of the latter indistinctly varied with a darkish shade.

“Your *Drymoica* is nearly affine to the common *D. fusca* of Bengal, Nepal, &c., represented by *D. inornata* in Southern India; but has a conspicuously longer tail, is more decidedly rufescent on the lower parts and around the eye; and the crown is distinctly striated, in which last respect it approximates to the *Cisticolæ*.”—Blyth.

### 29. CISTICOLA TINTINNABULANS, n. sp.

This bird is of very rare occurrence in Amoy, but is frequent near Shanghai and in Formosa. I have described it as *Calamanthella tintinnabulans* in the 2nd vol. of the Journal of the North China Branch of the Asiatic Society. It jerks itself about high in the air while uttering its strange tinkling note.

### 30. ACROCEPHALUS MAGNIROSTRIS, n. sp.

This bird abounds from Amoy to Shanghai in all reed-covered places, and has a powerful musical voice. I take it to be the same bird as that described in the ‘Fauna Japonica’ as *Salicaria Turdus orientalis*. Mr. Blyth says: “Of your *Acrocephalus* it may be remarked that (like the two figured in Gould’s ‘Birds of Australia’) it helps to fill up the gap between the large and small species of Europe and India respectively; and that it is remarkable for the great, disproportionate size of the bill, which equals that of the European *A. arundinaceus* (Linn.), or of the Indian *A. brunneescens* (Jerd.), both of which are much larger birds.” Length 7·2; wing 3·1; tail 3, graduated; bill ·8, to gape 1·1. Upper parts sienna or yellowish brown; wings brown, margined with the same; tail do. and tipped with yellowish grey; eye-streak and throat yellowish white. Under parts sienna yellow, with more or less white.

### 31. ACROCEPHALUS BISTRIGICEPS, n. sp.

This is a much rarer bird than the foregoing, and may have

been previously described; but I have not yet been able to identify it. It may easily be distinguished by a line of black over a yellowish streak above each eye. Length 5·25; wing 2·3; tail 2·1, graduated; bill ·5, to gape ·6. Upper parts olive-brown, tinged with sienna, redder on the rump and edgings of the tail; wings hair-brown, margined with the prevailing colour. Throat, belly, and under wing-coverts whitish; the rest of the lower parts deeply washed with sienna buff.

### 32. ARUNDINAX CANTURIANS, n. sp.

A winter species in Amoy, but found in summer at Shanghai uttering its notes, which are so rich and full as to make the hearer expect a fine song coming. But, alas! these three or four notes are all that the bird possesses; and, though you strain your ear in listening, from the same bush you hear at intervals the same few rich notes.

Mr. Blyth observes on a skin sent him—"This seems very like a second species of my genus *Arundinax*. The tail, however, is obscurely striated across, which I do not perceive in my *A. olivaceus*; and your bird has also a much stronger hind toe and claw, quite disproportionately so as regards the anterior toes. The white of its wings underneath is remarkable. The tail is less graduated than in *A. olivaceus*."

It is probable that this may be *Salicaria cantillans* of the 'Fauna Japonica.' Length 6·5; wing 2·8; tail 2·9; bill ·5, to gape ·8; tarsus 1·1, middle toe ·85; hind toe ·65. Forehead and crown of the head rufous brown. Upper parts and tail olive-brown. Wings hair-brown with yellowish brown margins. Throat, under wing-coverts, and belly white. Eye-streak and remaining under parts ochreous grey. Bill and feet brownish.

### 33. ARUNDINAX MINUTUS, n. sp.

This is a most singular miniature of the foregoing bird, resembling it almost exactly in colour, but differing considerably in size. Length 5; wing 2·2; tail 2·1; tarsus ·85; middle toe ·7, hind toe ·5. This bird is also more robust in build, and is much rarer as a winter visitant here. The disproportionate size of the hind toe is not so conspicuous as in its congener.



34. *PHYLLOSCOPUS FUSCATUS*, Blyth.

Common during winter, and stays so late in spring that I have a strong suspicion that it nidificates in the neighbourhood. It entertains us during the early vernal months with its pretty shake song; but its most frequent note is "chick-chick."

35. *PHYLLOSCOPUS SYLVICULTRIX*, n. sp.

Mr. Blyth, on a view of this bird, pronounced it "a new species, differing from all but the European *sibilatrix* in the minute size of its first primary, in which character, however, *sibilatrix* exceeds it." This species is very numerous here in the months of April and May, but leaves us to breed. Length 4·5; wing 2·5, 1st quill ·5, 2nd 1·75, 3rd and 4th 1·9; tail 1·7; bill ·5, to gape ·65; tarsus ·75. Upper mandible brown, with a yellow edge; lower yellow, with a patch of brown on the terminal half. Legs pale yellowish brown, yellower on the under surface of the toes, and browner on the claws. Upper parts olive-green, brownish in some lights, especially on the crown. Line over the eye, a row of feathers on the lower half of the circle round the eye, and part of the cheeks pale chrome-yellow. Space between the bill and eye blackish olive. Feathers of the wings and tail hair-brown, broadly margined with olive-green, and having a spot of yellowish white on the tip of the outer web of the five first secondary coverts. Under parts pale yellowish or primrose-white, varying in depth of tint. The under shafts of all the tail-feathers white, and the margin of the inner webs of the three outer tail-feathers faint white. The size of the bill varies a good deal in different individuals.

36. *PHYLLOSCOPUS TENELLIPES*, n. sp.

This species has very delicate light pink-coloured legs and feet. Crown of the head, and a streak between the bill and eye produced over the ear-coverts, blackish olive-brown. Eye-streak yellowish. Upper parts buff-olive. Under parts pure white, except the flanks and under tail-coverts, which are buff, and the under wing-coverts of a primrose-yellow. Culmen of bill dark brown, the rest pale pinkish yellow. This is a straggling visitant during the cool weather.



37. *PHYLLOSCOPUS CORONATUS* (Temm. & Schleg.).

This species is noticeable from having a faint line of yellow on the crown, like a *Regulus*, and is probably the species described under the above name in the 'Fauna Japonica.' It is sometimes met with in small parties during spring.

38. *REGULOIDES PROREGULUS* (Pall.). (*R. modestus*, Gould; *R. inornatus*, Blyth.)

Winters here, and is of solitary habits. Identified by Mr. Blyth, who remarks—"Common here (Calcutta) in the cold season. When newly moulted, has a pale median line along the crown."

39. *REGULOIDES CHLORONOTUS*, Hodgs.

Identified by Mr. Blyth as the Himalayan species. Often seen during winter here in pairs, going about from tree to tree in search of insects.

40. *COPSYCHUS SAULARIS* (Linn.).

A common resident. Native name, "Chuy-kam-chay."

41. *PRATINCOLA INDICA*, Blyth.

Winters here.

42. *RUTICILLA AUROREA* (Pall.).

Winters here. A second species occurs, of which I have only one female, and have therefore not been able to identify it.

43. *NEMURA RUFILATA*, Hodgs.

Winters here.

44. *THAMNOBIA NIVEIVENTRIS*, n. sp.

This is a lively Chat-like bird, but has a habit of jerking up the tail like a robin and exhibiting the pure-white anal feathers. Length 5·2, wing 2·8, tail 2·1, bill ·25. Upper parts greyish brown; under parts greyish tinged with buff, especially on the under wing-coverts. Lower belly and vent pure white. Wings greyish brown, with broad buff tips to the secondary coverts, forming a transverse bar across the wing; quills edged with light buff brown, and most of them tipped whitish. Tail black, the three outer feathers having the basal two-thirds white. Bill and legs black.

This species is a winter visitant, but not common here.

45. *PARUS MINOR*, Temm. & Schleg.

Mr. Blyth tells me that the species prevalent from Hong-kong to Shanghai is not *P. atriceps*, but most probably *P. minor*, lately figured in the 10th Part of Gould's 'Birds of Asia.'

46. *ZOSTEROPS JAPONICUS*, Temm. & Schleg.

This is most probably the same species as that of the 'Fauna Japonica.' It is resident on the mainland, and visits Amoy occasionally in small troops.

47. *MOTACILLA BOARULA*, Linn.

A common winter visitant.

48. *MOTACILLA LUZONIENSIS*, Scop.

Common in winter; a few breed here. Length 7·3, wing 3·5, tail 3·5.

49. *MOTACILLA OCULARIS*, n. sp.

Distinguishable from the foregoing by a permanently grey back, larger size, and a *black line* running through the eye, past the ear-coverts. Length 7·8, wing 3·7, tail 3·8. On the other hand, the bill and the head are smaller.

50. *BUDYTES FLAVA* (Linn.).

I think this is the species; it is certainly not *B. citreola*. It is of rare occurrence here.

51. *ANTHUS THERMOPHILUS* (Hodgson).

Identified by Mr. G. R. Gray of the British Museum. Common during winter.

52. *ANTHUS AGILIS*, Sykes.

Common during winter.

53. *ANTHUS RICHARDI*, Vieill.

Common during winter.

54. *MYIOPHONUS HORSFIELDII*, Vigors?

Lives among rocky caverns, and is very shy. Its native name is "Aw-chuy." I have marked the name with a query because I have not been able to compare our bird with others referred to that species\*.

\* It is probably distinct, and should be called *M. cæruleus* (Scop.), being the *Merle bleu de la Chine* of Sonnini.—ED.

55. *TURDUS DAULIAS*, Temm., Faun. Japon.

This is our commonest winter thrush. A few are occasionally found together, though the bird is not gregarious. One, shot the 23rd February, is described as follows:—Length 9·2; wings 4·9; tail 3·5; bill ·8, to gape 1·1. Upper parts rich olive-brown, paler on the breast and flanks of lower parts, and greyish on the cheeks. A spot under the eye, chin, and throat white, the latter speckled with olive-grey. Belly and under tail-coverts white, the last blotched with olive-brown. Bill: upper mandible black, edged with yellow; lower mandible, inside of mouth, and skin round the eye chrome-yellow. Legs pale liver-brown. Quills hair-brown, margined on the outer webs of the four foremost with white. Tail hair-brown, margined with olive-green, the two outermost feathers having large spots of white on the inner webs towards the tip, and the 3rd feather only a small spot. In spring, the head, neck, breast, and flanks become deeply tinged with bluish grey, varied with more or less white in different individuals.

56. *TURDUS PALLENS*, Pallas. (*T. pallidus*, Gm.).

Not unfrequent during winter.

57. *TURDUS CHRYSOLAUS*, Temm. & Schleg. Faun. Japon.

This handsome species is closely allied to our *T. advena* in size and shape; but the red that marks its plumage is a sure distinction. Small parties of this bird arrive in early spring, but they make short sojourn with us.

Four other species of *Turdus* occur during the winter; but, as I have no duplicates, I have not had the means of identifying them.

58. *TURDUS MANDARINUS*, Bp.

Identified by Mr. G. R. Gray. A common resident, and very abundant from Amoy to Shanghai.

59. *OREOCINCLA AUREA*, Bp.

A straggling visitant. Number of rectrices fourteen

60. *PETROCOSSYPHUS MANILLENSIS* (Bodd.).

A common resident among the rocks.

61. *GARRULAX RUGILLATUS*, n. sp.

This large Butcher-thrush is found among bushes on the hills of the mainland here, and is of common occurrence also at Fouchow; I have more than once found the remains of small birds in its gizzard. Length nearly 1 foot; wing 4·7 inches; tail 5·2; bill ·9, to gape 1·3. Back, wings, and tail yellowish brown. Head and neck yellowish grey. A band of black reaches from one ear-covert, over the forehead, to the other, forming a broad mark over the eyes. Under parts pale rufous ochre, but very deep on the vent. Beak and legs brown.

62. *ORIOLOUS CHINENSIS*, Linn.

A rare straggler here, but very common in S.W. Formosa. The female is slightly greener than the male on the back and wings, and is considerably larger. Another species, not found here, I have received from Mr. Holt at Fouchow. It has a spotted breast.

63. *PYCNONOTUS SINENSIS*, (Gmel.). (*Turdus occipitalis*, Temm.)

Very common all over the coast from Hong-kong to Shanghai, and everywhere in Formosa.

64. *PYCNONOTUS HÆMORRHOUS* (Gmel.).

Found abundantly in some places in this neighbourhood, but particularly local, seldom straying far.

65. *TCHITREA PRINCIPALIS*, Temm.

A rare spring straggler; identified by Mr. G. R. Gray.

66. *TCHITREA CÆRULEOCEPHALA* (Quoy et Gaim.) ??

Rare, and not identified.

67. *HEMICHELIDON LATIROSTRIS* (Raffles).

(*Muscicapa cinereo-alba*, Temm. and Schleg., Fauna Japon.)

A common winter visitant. The former name identified by Mr. Blyth, the latter by Mr. Stevenson.

68. *HEMICHELIDON FULIGINOSA*, Hodgs.

A rare spring visitant.

69. *HEMICHELIDON RUFILATA*, n. sp.

This species approximates to *H. latirostris* in form, but has a bill broader at the base. It is a rare spring visitant here.

Length 4·7; wing 2·9; tail 2; bill ·4, to gape ·6, breadth of gape ·35; tarsus ·5. Head and upper part of neck blackish grey. Back and scapulars reddish brown. Wings blackish brown, margined with burnt sienna. Rump and tail tile-red, the feathers of the latter more or less marked with blackish. Throat and fore neck white, yellowish on their sides. The rest of the lower parts (excepting just the abdomen, which is white) reddish or burnt-sienna ochre, more or less intense.

70. *XANTHOPYGIA NARCISSINA* (Temm.). (*X. chrysophrys*, Blyth.)

A rare spring visitant.

71. *NILTAVA CYANOMELÆNA* (Temm.), Faun. Japon.

A rare spring straggler.

72. *CAMPEPHAGA CINEREA* (Blyth) ?

Of a deep bluish grey, with green-black wings and tail; the feathers of both tipped more or less with white, the graduated tail-feathers deeply tipped. Vent white. Bill and legs black. Length 9; wing 4·5; tail 3·7. This species occasionally shows itself here in spring and in autumn.

73. *PERICROCOTUS CINEREUS*, Lafr. Rev. Zool. 1845, p. 94. (*P. motacilloides*, mihi.)

A female of this, or of a nearly allied species, appears to have been described under the name *P. cinereus*. During the spring a numerous party of these birds arrived, and stayed with us for several days, the females exceeding the males in number about five or more to one. The crops of those dissected contained caterpillars and eggs of the large yellow bug (*Tesseratoma dellessertii*). These birds had a very pretty thrilling note, like that of the Canary, only much louder. When the flock was disturbed, it would rise high, flying round and round in large circles, gradually ascending, the individuals that composed it rising and falling at irregular intervals, and constantly uttering their notes. Suddenly, with a sweep, they would all descend into some tree, and, settling at first on the top, would soon afterwards disperse among the boughs to search for food. They were so foolishly tame, that at the report of a gun they only hopped on to another branch, though they witnessed the fall of one or more



comrades. Here is the description given by De Lafresnaye:—  
 “Cendré en dessus; lorums, ailes et queue noirs; front, une tache médiane alaire, pli de l’aile, bord extrême des rémiges tertiaires, la presque totalité de trois rectrices latérales et tout le dessous de corps, blancs. Longueur totale 0<sup>m</sup>·193. Habite l’île de Luçon (Philippines).” The female in all mine has *greyish-brown* wings; the black of the lores extends over the beak; and *four*, instead of *three*, lateral rectrices have a good deal of white on them. Length 8; wing 3·8; tail 4, the three outer feathers being shorter than the rest, equally graduated, measuring 1½, 2, and 2½ respectively, the six central ones nearly equal; expanse 10½, bill ½, to gape ·8. Bill and feet black.

The male has a broad white forehead and a black crown, which gradually blends with the bluish grey of the back; the wings are also blacker; and there is more grey on the sides of the breast. In fact the plumage of the male has great affinity to that of the wild *Motacillæ*, and also forms a happy transition from the grey *Campephagæ* to the crocus-tinted *Pericrocoti* \*.

#### 74. DICRURUS MACROCERCUS (Vieill.).

A summer visitant, but by no means common at Amoy. Remarkably common in S.W. Formosa, where several may be seen sitting on nests in the same bamboo-tree.

#### 75. LANIUS SCHACH, Gm.

A common resident. Has a great habit of shrieking.

#### 76. LANIUS LUCIONENSIS, Linn.

Identified by both Mr. Blyth and Mr. Stevenson. The former observes: “This is decidedly the true *L. lucionensis*. Strickland (Ann. & Mag. N. H. 1847, xix. p. 132) considers that all the various allied races are only varieties of the same. My notion is, that there are three or four cognate races, which may breed together when circumstances permit of it, and so grade into one another. Unquestionably a Malayan *L. superciliosus* is very unlike *L. lucionensis*.”

This is a common visitant with us.

\* There seems to be no doubt of this bird being *P. cinereus*. It is figured in Gould’s ‘Birds of Asia,’ pt. ix.—ED.

77. *LANIUS BUCEPHALUS*, Temm. & Schleg.

I have met with but one of these birds here. It had a large rufous head, without the usual black face-band of the genus.

78. *CORVUS PECTORALIS*, Gould.

The common Crow here. A permanent resident.

79. *PICA SERICEA*, Gould.

Very common. Roosts in company in large trees, whence parties sally every morning to the country round for food; at nightfall they all return again, cackling, curveting, and performing sundry antics in the air. They are much admired by the natives for their lively habits, and are called by them the "Birds of Joy."

80. *ACRIDOTHERES CRISTATELLUS* (Linn.).

A very common species from Hong-kong to Shanghai. Builds in holes of trees or walls, or makes large oval nests in high trees. Learns to speak with facility, and soon becomes docile in confinement.

81. *GRACUPICA NIGRICOLLIS* (Paykull). (*Pastor temporalis*, Temm.; *P. bicolor*, J. E. Gray.)

A common resident, generally seen in pairs, but also associating in small parties. It is a very noisy bird. It builds a magpie-like nest on high trees, and lays three pale-blue eggs. It is found also in Siam.

82. *TEMENUCHUS TURDIFORMIS* (Wagler). (*T. sinensis*, Gmel.)

A common summer visitant. A very restless bird. It builds in holes of walls. It is found also in Pegu.

83. *TEMENUCHUS SERICEUS* (Lath.).

Identified by Mr. Blyth. A winter visitant; lives, while with us, chiefly on Banyan-berries.

84. *TEMENUCHUS CINERACEUS* (Temminck).

This resembles the foregoing a good deal in form, but is broader on the back, and generally more robust. It visits us during winter, in small flocks, to devour the Banyan-berries. Length 8·7, wing 5, tail 2·8, bill 1, to gape 1·3. Bill tile-red, blackened on the apical half. Legs orange ochre, claws blackish.

Irides white. Head and neck blackish brown interspersed with a few white spots; cheeks white, more or less streaked. Upper parts liver-brown, tinged with grey. Wings and tail with a slight greenish gloss; the foremost secondaries broadly edged with white, the rest and some of the quills but slightly; the tail-feathers are extensively edged with white, and all, except the two central, more or less deeply marked with white on the apical portion of the inner web. Breast and flanks bluish grey. Under wing-coverts, belly, pygial band, and under tail-coverts pure white. The females are browner, and have little or no grey on them.

85. *COCCOTHTRAUSTES MELANURUS* (Gmel.).

Found here the winter through, but leaves us before summer. Breeds in Shanghai.

86. *MUNIA MALACCA* (Linn.).

Young birds are met with in autumn.

87. *MUNIA MOLUCCA* (Linn.).

Found in the neighbourhood; scarce. Common at Shanghai during summer.

88. *MUNIA RUBRONIGRA*, Blyth.

Scarce.

89. *ORYZORNIS ORYZIVORA* (Linn.).

Flocks occasionally met with during winter and spring.

90. *LIGURINUS SINICUS* (Linn.).

A small goldfinch-like bird with a greenfinch's bill; not uncommon on the hills; has a pretty, tinkling call-note.

91. *PASSER MONTANUS* (Linn.).

Common everywhere about houses. Resembles in habits the house-sparrow, *P. domesticus* (Linn.).

92. *EMBERIZA FUCATA*, Pall.

Met with among standing grain during winter, but difficult to procure, from its habit of dropping under cover of the grain, and seldom perching in exposed places.

93. *EMBERIZA PUSILLA*, Pall.

Occasional in flocks during winter.

94. *EMBERIZA CANESCENS*, n. sp.

Small flocks of these occur during winter. Male: length 5·1; wing 2·9; tail 2·5, and somewhat forked; bill ·35. Head and neck sienna grey; crown, cheeks, and throat becoming black and having a frosted appearance. Back and scapulars black, each feather broadly margined with white, and more or less tinted with reddish sienna. Wings blackish brown, broadly margined with tinted white. Under parts and rump white. Tail blackish brown, having the two central feathers broadly margined with white, the next hardly at all; outer feathers white, except a small basal portion of the inner web; the second broadly tipped with the same. The female is deeply tinged with reddish brown above and reddish ochre beneath. Her wing measures 2·7.

95. *EUSPIZA PERSONATA* (Temm.).

The commonest bunting here during winter.

96. *EUSPIZA AUREOLA* (Pall.).

Met with in flocks in winter, feeding on the ripening corn.

97. *MELOPHUS LATHAMI* (Gray).

A common winter species. A few breed in the neighbourhood.

98. *ALAUDA CÆLIVOX*, nobis.

I have described this as a new species in the third volume of the North-China Branch of the Asiatic Society's 'Journal;' but further and closer comparison of the bird is needed before the truth can be arrived at.

99. *YUNX TORQUILLA*, Linn.

Common during winter.

100. *CUCULUS CANORUS*, Linn.?

A bird of passage at Amoy, arriving in autumn and spring, and sojourning here only a few days. It breeds in Shanghai.

101. *CUCULUS TENUIROSTRIS*, Gray.

A summer visitant; has a loud-toned whistle, repeated four times, and then terminating with a run.

102. *TURTUR CHINENSIS* (Scop.). (*C. tigrina*, Temm.)

Common everywhere from Hong-kong to Shanghai.

103. *TURTUR HUMILIS* (Temm.).

A summer visitant.

104. *TURTUR ORIENTALIS* (Lath.). (*C. gelastes*, Temm.)

This species is closely affined to *T. meena*, but is much larger and has a black bill. It is found during the months of winter in this neighbourhood; I have also seen it in Formosa; and a specimen was given to me which had flown on board a ship outside the Madjicosima Islands.

105. *FRANCOLINUS PERLATUS* (Gmel.).

Birds of this species are brought to market by the natives from some neighbouring part of the country.

106. *COTURNIX CHINENSIS* (Linn.).

A winter bird here, and by no means common. Met with occasionally amongst standing corn.

107. *SQUATAROLA HELVETICA* (Linn.).

Met with in small flocks on the river mud-flats during winter.

108. *ÆGIALITES CANTIANUS* (Lath.).

A winter visitant, associates in large flocks, and frequents the sea-coast and mouth of the river. A few stay during summer, and nestle on the mud-flats of the islands at the entrance to the harbour.

109. *ÆGIALITES PUSILLUS* (Horsf.).

Resembles *Æ. hiaticula* (Linn.). It is a winter visitant, and prefers fields of dry mould to the sea-coast. It lives in small parties, and rises with a pretty note, "teó-teó."

Another species is occasionally shot, out of mixed flocks of small sea-birds, resembling a good deal the *Æ. cantianus* in winter garb, but considerably exceeding it in size.

110. *HÆMATOPUS OSTRALEGUS*, Linn.

Occasional winter visitant.

111. *ARDEA CINEREA*, Linn.

Common during winter; flocks occasionally pass over during summer.



112. *HERODIAS EGRETTE* (Linn.) ?

A large white heron is seen occasionally in winter among the river marshes ; it is not yet identified.

113. *HERODIAS GARZETTA* (Linn.).

The common species here all the year through ; builds in heronries in large Banyan-trees.

114. *HERODIAS EULOPHOTES*, n. sp.

This differs from *H. garzetta* strikingly in having a yellow bill, full-crested occiput, and shorter legs. It is a rare and solitary species. Length 27 inches ; wing 9·25 ; bill from tip to gape 3·75 ; tarsus 3·00 ; naked part of the tibia about 1·75 ; middle toe 2·25, its claw ·25. Legs greenish black ; feet olive-brown, patched in places with yellow. Bill orange-yellow, becoming flesh-coloured and purplish on the lores and round the eye. Irides pearl-white. A number of loose feathers spring from the occiput, forming a full ornamental crest, the highest ones being longest and measuring  $4\frac{1}{2}$  inches each, the length diminishing gradually in the lower ones. Long loose feathers also spring from the lower neck, as also from the back, whereas in *H. garzetta* they become decomposed into hair-like silky webs curling upwards at their ends. This bird appears to have considerable affinity with *H. candidissima* of N. American ornithology.

115. *HERODIAS ASHA* (Sykes).

One specimen shot in spring.

116. *BUPHUS COROMANDUS* (Bodd.). (*Ardea russata*, Temm.)

Common in summer, building in flocks on Banyan-trees.

117. *ARDEOLA PRASINOSCELES*, n. sp.

Male shot in May. Apical half of bill black, middle portion chrome-yellow, base and cere indigo-grey. Legs greenish chrome. Irides orange-yellow. Head and neck indian red, gradually changing into purple as it descends to the back. Throat, median line of under neck, belly, rump, and wings white. Back having long, loose, bluish-grey feathers, decomposed and hair-like. Lower part of the neck with feathers long and hair-like, nearly covering the blue feathers of the breast. Crest composed of two long subulated feathers 4·25 in.

long, with several shorter ones fitting into the groove on their under sides; these feathers are the same colour as the head. Now Horsfield states, in his 'Researches in Java,' that the *A. speciosa* has "in its complete dress the head above, &c. isabella-yellow with a rufous tint . . . .; colour of the back intensely black . . . .; feet dark yellowish brown . . . . The crest consists of from four to six greatly lengthened linear plumes of a very pure milk-white colour. The bill is dusky at the base."

This comparison of the adult plumage is surely convincing of the non-identity of the two birds. The immature plumage would appear to be more similar; but even here there are differences. In the Malacca species, according to Horsfield, "the wings and the tail are pure white;" in ours, they are more or less dashed with blackish. In his, "the feet, and the upper mandible throughout its whole length, are black;" in ours, the former are bright yellowish green, with brownish claws, and the bill pale liver-brown, black for  $\frac{1}{4}$  inch at the tip; the naked space round the eye greenish-yellow, bluish at the base of the bill. Hence it is plain that ours is not *A. speciosa*; and, from the following remark from Mr. Blyth after comparing skins from Amoy with some of the *A. leucoptera*, it is also evident that it is perfectly distinct from the Bengal species. Mr. Blyth observes, "Yours is so exceedingly like our common *A. leucoptera* in winter dress, as to be hardly, if at all, distinguishable, but utterly unlike it in summer garb. Malacca specimens I have only seen in winter dress."

118. ARDETTA CINNAMOMEA (Gmel.).

A summer visitant.

119. ARDETTA SINENSIS (Gmel.). (*A. lepida*, Horsf.)

Common during summer, among the bushes that line the banks of the river.

120. NYCTICORAX MANILLENSIS (Vigors).

Seen flying overhead during summer, in the dusk of nightfall, uttering strange croaks.

121. PLATALEA LEUCORODIA, Linn.

Occasional winter visitant.

122. *NUMENIUS MAJOR*, Temm. & Schleg.

Regular winter visitant. Frequents mud-flats, usually in large flocks.

123. *TOTANUS GLAREOLA* (Linn.).

Common on inland marshy ground during winter.

124. *TOTANUS GLOTTOIDES*, Vigors.

Common during winter, on mud-flats at the river's mouth.

125. *TOTANUS OCHROPUS* (Linn.).

Rare; met with by small streams of fresh water, very seldom near salt water.

126. *TRINGOIDES HYPOLEUCUS* (Linn.).

The commonest Sandpiper here; found the greater part of the year on the sea-shore, mostly on rocky places.

127. *RECURVIROSTRA AVOCETTA*, Linn.

Occasional winter visitant.

128. *TRINGA CINCLUS*, Linn.

Frequenting our shores in large flocks during winter.

129. *TRINGA TEMMINCKII*, Leisl.

Found in small parties scattered over wet fallow paddy-fields in the cold season.

130. *SCOLOPAX RUSTICOLA*, Linn.

A few drop on this island during the autumnal and vernal migrations, but soon resume their flight.

131. *GALLINAGO UNICLAVA*, Hodgs.

Our commonest species in paddy-fields or on other wet ground. Retires in summer to breed.

132. *GALLINAGO STENURA* (Temm.).

Also common.

133. *GALLINAGO SOLITARIA* (Hodgs.)?

Solitary individuals found in ravines among the hills during winter. It is a much larger bird than the two above, has the tail slightly rounded and consisting of twenty nearly equally long feathers, the eight middle ones broad and terminated obtusely, the six lateral ones narrow, beginning with the first,

which is a little more than .1 inch wide, and gradually increasing towards the outermost of the eight central, which is narrower than the rest. These narrow feathers end in obtuse narrow points.

134. PORZANA PHENICURA (Penn.). (*Gallinula javanica*, Horsf.)

A rare spring straggler.

135. ANSER SEGETUM (Lath.).

Frequents the mouth of the river in immense flocks during winter.

136. TADORNA VULPANSER (Flem.).

137. CASARCA RUTILA (Pall.).

138. ANAS BOSCHAS, Linn.

139. DAFILA ACUTA (Linn.).

140. QUERQUEDULA CRECCA (Linn.).

141. QUERQUEDULA MULTICOLOR (Scop.).

All more or less common in different winters.

142. FULIGULA MARILA (Linn.).

143. FULIGULA CRISTATA (Linn.).

Common winter Sea-ducks here.

144. MERGUS SERRATUS (Linn.).

Somewhat solitary in habits, though a common species here.

145. COLYMBUS GLACIALIS, Linn.

Of frequent occurrence during winter.

146. PODICEPS CRISTATUS (Linn.).

Common in winter.

147. PODICEPS AURITUS (Linn.).

Frequently occurs during winter.

148. PODICEPS PHILIPPENSIS (Bonn.).

A resident species, found in large rush-covered ponds.

149. DIOMEDEA BRACHYURA, Temm.

150. DIOMEDEA FULIGINOSA, Gmel.

Both species caught by fishermen and brought into the market

for sale,—the flesh, all musk-flavoured as it is, being devoured by the omnivorous Chinaman. They go by the name of the Hai-nan-gong, or “booby of Hai-nan.”

151. *LARUS CANUS*, Linn.

152. *LARUS FUSCUS*, Linn.

These two, and three other species not identified, are all winter visitants, and are most abundant in the harbour during windy or stormy weather.

153. *GAVIA KITTLITZII*, Bruch. (*L. melanorhynchus*, Temm.?)  
Very common during winter.

154. *STERNA CASPIA*, Pall.

A winter visitant.

155. *STERNA CRISTATA*, Steph.

Nestles on some neighbouring rocky islands and in great numbers at Kelung (N. Formosa).

156. *STERNA MINUTA*, Linn.

Rare here; breeds in great numbers on the rock-bound coast of southern Formosa.

157. *HYDROCHELIDON JAVANICA* (Horsf.).

Rare.

158. *PELECANUS CRISPUS*, Bruch. (*P. philippensis*, Gmel.)

A few frequent the mouth of the river every winter.

159. *PHALACROCORAX CARBO* (Linn.).

Common in winter, assembles in flocks in spring, which leave us to pass the summer months elsewhere.

VII.—*On the Ornithology of Northern Africa.* By the Rev. H. B. TRISTRAM, M.A., F.L.S. (Part III. *The Sahara, continued.*)

[Continued from vol. i. p. 435.]

99. *COLUMBA LIVIA*. (Rock Dove.) “*Goomri*,” Arab.

Common in all the rocky gorges, wherever there is a little vegetation, and often met with in the cultivated patches about the oases.